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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/805,133 | 03/19/2004 | Seiichi Yokoyama | 112857-468 | 3146 |

29175 7590 09/22/2006

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| EXAMINER |
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SANDVIK, BENJAMIN P

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| ART UNIT | PAPER NUMBER |
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2826

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,133

Applicant(s)

YOKOYAMA ET AL.

Examiner

Ben P. Sandvik

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15, 19-22 and 24-29 is/are rejected.
- 7) ☒ Claim(s) 6, 16-18 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date, ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-11, 15, 19, 20, and 24-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukunaga et al (U.S. PG Pub #2001/0011868).

With respect to **claims 1 and 28**, Fukunaga teaches a light-emitting device (Fig. 2A) for use in a display unit (Fig. 8) comprising: a first electrode, a layer including a light-emitting layer (Fig. 2A, 209-211) and a second electrode (Fig. 2A, 213) laminated in sequence on a substrate (Fig. 2A, 201) with a base layer (Fig. 2A, 205) in between, and extracting light generated in the light-emitting layer from the second electrode, wherein the first electrode includes an adhesive layer (Fig. 2A, 206) disposed in contact with the base layer; a reflective layer disposed on the adhesive layer to reflect the light generated in the light-emitting layer (Fig. 2A, 207a and Paragraph 39); and a barrier layer disposed on the reflective layer to protect the reflective layer (Fig. 2A, 207b).

With respect to **claims 2 and 19**, Fukunaga teaches that the adhesive is made of a metal (Paragraph 31, "metallic particles").

With respect to **claims 3 and 20**, Fukunaga teaches that the reflective layer includes silver (Paragraph 9).

With respect to **claims 7, 8, 24, and 25**, Fukunaga teaches a barrier layer of indium tin oxide (Paragraph 63).

With respect to **claims 9 and 26**, Fukunaga teaches that the thickness of the barrier layer ranges from about 1nm to 50 nm (Paragraph 10).

With respect to **claim 10**, Fukunaga teaches that the base layer includes a planarizing layer (Fig. 2A, 205).

With respect to **claims 11, 27 and 29**, Fukunaga teaches that the light-emitting layer includes an organic layer (Paragraph 12).

With respect to **claim 15**, Fukunaga teaches a method of manufacturing a light-emitting device, the light-emitting device comprising a first electrode, a layer including a light-emitting layer and a second electrode laminated in order on a substrate with a base layer in between, the method comprising the steps of: forming an adhesive layer on the base layer; forming a reflective layer reflecting light generated in the light-emitting layer on the adhesive layer; forming a barrier layer protecting the reflective layer on the reflective layer; forming the first electrode through patterning the barrier layer (Paragraph 63, "the films are etched together to form a pixel electrode and anode"), the reflective layer and the adhesive layer in order from the barrier layer; forming the layer including the light-emitting layer on the first electrode; and forming the second electrode on the layer including the light-emitting layer.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga, in view of Ikeda (U.S. Patent #6476416).

With respect to **claims 12-14**, Fukunaga does not teach that the adhesive layer also serves as an auxiliary reflective film reflecting light generated in the light-emitting layer and having passed through the reflective layer. Ikeda teaches an adhesive layer (Fig. 5, A) that reflects light (Col 9 Ln 53-55) and includes chromium, which has a reflectance of greater than 50%. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the adhesive layer of Fukunaga serve as an auxiliary reflective film as taught by Ikeda in order to reflect light.

Claims 4, 5, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga, in view of Doi et al (U.S. Patent #6444334).

With respect to **claims 4, 5, 21, and 22**, Fukunaga does not teach that the reflective layer is made of a silver alloy. Doi teaches an alloy having silver, samarium, copper (Col 17 Ln 51-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a reflective

layer including an alloy of silver, samarium, and copper as taught by Doi because the material has a lower work function.

Allowable Subject Matter

Claims 6, 16-18, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben P. Sandvik whose telephone number is (571) 272-8446. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

bps


EVAN PERT
PRIMARY EXAMINER